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In the Words of the Wise

Rep. George E. Brown Jr.

Third in SGR's series of conversations about the turbulence in science politics with veteran members of the Washington science-policy community. We previously spoke with Erich Bloch, former Director of the National Science Foundation (Oct. 15), and Maxine Singer, President of the Carnegie Institution of Washington (Dec. 1).

Currently in his 32nd year in Congress, Rep. George E. Brown Jr. (D-Calif.) ascended in 1991 to the Chairmanship of what is now called the House Science Committee. With intense interest of many years' standing in R&D affairs, Brown promptly established himself as the stern but supportive statesman of science on Capitol Hill. Re-elected in 1994, Brown lost the Chairmanship and became ranking Democrat on the Committee when the Republicans took control of the House. Brown spoke with SGR Editor Greenberg on January 24. Following is the text, transcribed and edited by SGR.

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SGR. *Scientists have seen far better times in Washington. What's gone wrong?*

Brown. Deficit reduction is the overriding force. But beyond that, the scientists are lacking in humility, they're lacking in concern for the American electorate's values, and how science can help achieve them, if it can. They're not "on message," to use a phrase that's very common these days, if you're trying to build popular support for a particular policy.

SGR. *But they did well for a long time.*

Brown. The scientists were merely willing pawns in the Cold War game. They accepted the fruits of their role in the military, and the adulation that they received for preserving this country in a time of danger. And they assumed that they were entitled to the largess that flowed from this, because of their [jokingly] sterling character, moral integrity, and great vision. And that wasn't the case at all. In making a false assumption, they failed to see that this country has a number of very high priorities, of which military security is one, but it has many other priorities. And the research and development establishment has got to speak compellingly about these other priorities.

Scientists do not have a large and/or deep support network throughout the society. They're esteemed. But support for science, as the saying goes, is a mile wide and an inch deep. In times where there's a conflict about resource allocations, science is suffering from the inch-deep problem.

SGR. *But even in these difficult times, it receives substantial public support.*

(Continued on Page 3)

Close Call on 3rd Shutdown Leaves Science Quivering

The scarcest ingredients in Washington's dealings with science these days are predictability and an effective response within the science establishment to what Neal Lane, the Director of the National Science Foundation, has publicly described as "an unprecedented, abominable mess."

"The government shutdown was senseless, wasteful, and many would say irresponsible governance," Lane told the American Astronomical Society January 15 in San Antonio.

But Lane, normally mild and positive in his frequent oratorical performances, also expressed dismay with his scientific colleagues. "One thing that has been striking during this year of budget battles and, most recently, the shutdown," he said, "is the perceived stony silence of the

(Continued on Page 2)

In Brief

The annual February ritual of the President's budget for the coming fiscal year going to Capitol Hill—where it is invariably pronounced dead on arrival—has been miniaturized by the fiscal impasse between Congress and the White House. Clinton will send a brief document there next week, thus fulfilling a statutory requirement. But the 2.5-inch thick book with the fine details of spending won't be ready for a couple of months, if then. The reason is it's hard to write a budget for fiscal year 1997, beginning October 1, 1996, when spending levels for fiscal 1996 remain uncertain.

Economy is breaking out all over Washington. Reporters have long received free, advance copies of the **Journal of the National Cancer Institute,** ***presumably as part of NCI's effort to broadcast its good works. As of January 31, however, their place on the subscription list came with a price: $160 per year for advance copies or $100 for a regular subscription.***

The scientific misconduct case against Thereza Imanishi-Kari—generally referred to as the Baltimore case because of the renown of her Nobelist colleague—remains in slow motion at the Appeals Board of the Department of Health and Human Services. Dealing with events a decade ago, testimony was heard last summer. Summing up briefs are due from counsel in March, with final oral arguments probably in April. A decision may come in May or June, Board sources tell SGR.

O'Leary's Travels: Details of the DOE Chief's travels to India and South Africa, two of her 100 foreign and domestic jaunts, are in a report from the GAO, "Unsubstantiated DOE Travel Payments": GAO/RCED-96-58R, free, from: USGAO, PO Box 6015, Gaithersburg, Md. 20884-6015; tel. 202/512-6000; fax 301/258-4066.

. . . NSF Head Deplores Scientists' 'Lack of Concern'

(Continued from Page 1)

science and technology community—the universities, where most of the fundamental research is done, and, with few exceptions, business and industry.

"And I can assure you," he added, "that this perceived lack of concern has not gone unnoticed in Washington." Unnoticed by whom he didn't say. But among federal research administrators—with the exception of the politically mobilized biomedical community—the lack of a supportive din from their beneficiaries has been galling and is blamed for the low level of Congressional concern about the difficulties caused by fiscal turbulence in research.

Backed by the loudest research lobby, the National Institutes of Health has scored again, with a uniquely large budget increase, 5.7 percent, when most other agencies are in decline. Guaranteed funding through the whole fiscal year was also voted for NIH, thus protecting it against another shutdown.

NSF, on the other hand, has been living from one temporary funding bill to the next, with a spending level that, in the best possible outcome, will be slightly below last year's.

Lane made his remarks as Congress and the White House continued to quibble and grandstand over huge segments of the federal budget that still remain unsettled for the fiscal year that began last October 1. With two shutdowns, totaling a month of suspended operations, having already occurred, a looming third was averted close to the deadline when the House and the Senate last week approved another batch of temporary legislation acceptable to the White House.

The last-minute reprieve, however, extends only to March 15, and was composed with such haste that many federal agencies were deep in consultation with their legal counsel, legislative specialists, and the Office of Management and Budget last week to determine where they stand in both spending and operational authority.

In the Interior Department, the National Biological Service (NBS), for example, was previously legislated into oblivion and folded into the US Geological Survey, as of October 1, in a bill that the President vetoed. But the continuing resolution adopted for Interior provides for an immediate transfer. "We can't figure out the language," an NBS official told SGR.

Though a House-Senate conference agreed last year to eliminate the Advanced Technology Program in the National Institute of Standards and Technology, the continuing resolution provides for NIST to carry on to March 15 at 75 percent of the $340 million appropriated last year.

The word from NSF was that, under its latest continuing resolution, funding through March 15 will be apportioned on the basis of the figure approved by the House and Senate conference—for a total of $3.18 billion, of which $2.274 billion is earmarked for research, a 1.3 percent decline from last year.

NASA, which comes under the same appropriations subcommittees as NSF, was also funded at the conference level for the same period, for a 5 percent reduction in research from last year's budget. The biggest cut suffered by the space agency was in facilities for aeronautical research—$400 million last year, zero this year.

With polls showing that the Republican Congressional majorities are mainly blamed for the shutdowns, there's growing confidence that a durable budget peace will be worked out before March 15. But even if the federal establishment returns to fiscal stability, the disruptions of the two prior shutdowns are likely to be felt for some time.

In his address to the astronomers, Lane said that because of the cancellation or postponement of reviews and site visits during the shutdowns, and a backlog of applications, "Some new programs may be delayed by six months or more or cancelled."

As last week's deadline for new budget authority approached, a barrage of e-mails and communications stirred up by the American Physical Society's Internet newsletter, *What's New*, was reported on Capitol Hill. Even so, the science establishment—biomedical research excepted—remains a very quiet presence in Washington.—DSG

Missing in State of Union

Battered by Congress and feeling neglected by the White House, the Washington science establishment has morosely noted the absence of any reference to science in a State of the Union address in which the President left little else unmentioned. Grabbing the opportunity, Chairman Robert Walker of the House Science Committee described the "oversight" as "inconceivable," and said, "Perhaps the silence we heard in his speech speaks louder than words."

Asked at a seminar to account for the affront, Ernest Moniz, Associate Director for Science in the Office of Science and Technology Policy, labeled the issue "a complete red herring." The President, he said, had spoken warmly of science in a recent talk at Ohio State and in a letter to Senator Minority Leader Tom Daschle. Symbol-sensitive Washington dwells on such matters.

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. . . Science Office 'Outgunned' at the White House

(Continued from Page 1)

Brown. But [by 2002] we're going to see the federal civilian R&D budget go from $30 billion a year down to a little over $20 billion, and that does not reflect an additional 20-30 percent erosion by virtue of inflation. What you're going to see is a cut over seven years of possibly as much as 40 percent in the R&D budget. There's respect for science, but not a sense of priority.

SGR. *Just looking at this year, the two big science agencies, NIH and NSF, seem pleased with the outcome.*

Brown. They're feeling happy at NIH [which received a 5.7 percent increase]. But the reason is, it wasn't as bad as they thought it was going to be. They are far below their historic growth rate in terms of budget. NSF, on the other hand, is not feeling too badly, because they thought they were going to get cut much worse, and ended up with a modest 2-3 percent cut.

SGR. *Are you convinced that the cuts proposed over the seven years are going to take place?*

Brown. The seven-year plan is mythology, actually. The Republicans can take credit for the sense that it's set in concrete because they've put so much emphasis on the absolute necessity of a balanced budget, zero deficit, in seven years. Those are magic numbers. And they have hammered on them, time after time. And if you suggest an eight-year budget which is only $5 billion out of balance, that's heresy. So, it's created the image that here is something that is sacrosanct, that we have to do it. And the President caved in to that, and, in a sense, contributed then to the myth that this is the way it has to be.

The next Congress can change it. In fact, it probably will change it. But I think that having gone up the mountain of deficit, we now see the need to come down on the other side to something more close to balance. And the country will survive, believe it or not.

SGR. *The scientific enterprise, too?*

Brown. The scientific enterprise is at the present time facing a continued decline, for a number of reasons. The most significant was that it over-expanded, and it has to come down. We have been overproducing PhDs in science and engineering now for some time. We're seeing the stories of the peripatetic army of postdocs, a floating population who can't find permanent, tenured jobs. And the only solution to that is to quit turning out so many.

SGR. *Why has industry been quiet about Congress killing the government's industrial research programs?*

Brown. They felt that they're going to get a better deal from the Republicans. They felt that a combination of tax breaks, lower regulation, things of that sort, would do them more good than a shared program to develop new technology. That was the initial reaction from a substantial number of industrialists, including some of those who had urged us to develop the Advanced Technology Program at NIST [National Institute of Standards and Technology].

I think they're having second thoughts, because the tax breaks and the regulatory reductions are not going to materialize at anywhere close to the level that they thought. We're going to continue to have strong programs in all of these regulatory areas. It turned out to be a "wedge issue" with the Republicans. It divided the moderates from the conservatives.

SGR. *How well do you think the Clinton Administration has performed in support of science and technology?*

Brown. I have mixed feelings about it. I hailed the prompt appointment of Jack Gibbons as the [White House] Science Advisor. I have great respect and admiration for Jack. I'm disappointed, however, in the fact that in the competition for the President's ear on policy issues, I think the OSTP [Office of Science and Technology Policy] has been outgunned by the other policy operators in the White House, including those tough guys who take polls and show you exactly how many votes you're going to lose if you don't do this or that. You can't do that with science-policy issues, generally speaking. It's hard to translate actions there.

What we have seen, and we've praised the President for it, is the enunciation of a strong commitment to the importance of investments in research and development. But we haven't gotten the kind of response in terms of action that the President's words have indicated. He didn't make any excessive promises in his [State of the Union] speech last night. He didn't make any promises. He exhorted us to proceed with the plans made years ago to develop and apply information technology to important core values of the American people—education and health. And that exhortation probably will merely prevent some of the larger cuts that were going to be made otherwise.

But what needs to be done here, and I have made this my highest priority for this year, maybe the next two years or so, is developing a clear message about the relationship of science and the culture of science to the other core values of the society. The American people are concerned about their freedom, their opportunities for economic advancement, for distributional equity in society. Science can contribute to all of these. But they never talk about it. They never try to relate science to core values.

SGR. *What could a chemist, for example, say to the public about contributions to core values?*

Brown. Be imaginative. An applied chemist, if he's working on textiles, food systems, or improving agriculture, can show that the core values here are a more secure, productive economic infrastructure in each area. Technological jobs, which pay better, offer more promise for advancement and contribute to the freedom of the individual to live a more productive life. Any scientist can generalize that argument.

SGR. *Are you suggesting that science has done a poor job of public relations or that its concepts are too narrow?*

(Continued on Page 4)

. . . Organizing to Build R&D Support in Congress

(Continued from Page 3)

Brown. It suffers from both. It suffers from its own success in being productive through scientific specialization, which has led them to feel, well, we just keep specializing more and more, and we can be more productive. But that then fails to grapple with the reality that people think in broader systems, and they want harmonious, integrated systems, not highly focused disciplinary research.

SGR. *Why are there no leaders in science today who have wide public recognition and respect?*

Brown. Leadership arises out of need and opportunity. The challenges of the situation create leadership. It may be that the situation for the scientific community has been too easy for a while. They had to struggle to get the attention of the political leadership in World War II. And they successfully struggled, and many great names arose out of that. We don't have a similar situation today. There is such a thing as getting too soft and easy.

SGR. *Frank Press [former President of the National Academy of Sciences] recently came out with a report saying we have to redefine science in the budget and put the emphasis on research in universities* [Allocating Federal Funds for Science and Technology—*SGR, December 1].*

Brown. The report essentially struck me as a defensive reaction to the kind of circumstances that face us. What he's defending is the academic scientific community. If he had one word in there about the importance of—maybe he had one word—sufficient emphasis on the need for the academic scientific community to make some far-reaching changes on their own, I would have liked the report a lot better.

SGR. *What changes?*

Brown. He should recognize that they're overproducing scientific PhDs.

SGR. *They say they're not overproducing. But are you suggesting that we should close down some departments?*

Brown. There are institutions which are going to have to close departments and establish limits on the number of graduate students, and in the process of doing that, they can improve quality standards, maybe weed out some of the students who may be unfairly subsidized or in other ways are market-distorting. I'm thinking of the way we subsidize, in some cases, foreign medical students and maybe foreign science and engineering students.

SGR. *Universities say they want the best, regardless of nationality.*

Brown. That's the argument, but it doesn't conform to the facts all that much. Most of these foreign engineers and graduate students in science and doctors have certain problems. They have language difficulties, maybe other problems. But they still find a place for them. You can go into any public-funded hospital and see the number of foreign-trained doctors who don't communicate very well with their patients, and you wonder why we have to put up with this.

SGR. *You've been organizing a Congressional task force to support science and technology [SGR, November 15].*

Brown. We intend to intensify our efforts during this year, and at the same time, we're preparing a three-year agenda. We have 15 members. The objective is to improve our linkages with the other [Congressional] committees that authorize and fund R&D programs, with the parts of the Executive Office that are concerned with R&D policy, and with the Senate. We're trying to improve our links with the Democratic minority members, and the purpose here is to see if we can't develop a unified message on what our overall policy on R&D should be—not worry too much about the individual programs, but the overall policy structure.

We want to, of course, have some influence on actions at the White House in terms of R&D policy, and basically to do that, you have to convince enough people at the White House that there's a political benefit to this that warrants their attention. And then to take the most important step, we're going to try to identify the R&D constituency groups throughout the country. And identify what we can do to improve linkages there, including the assignment of individual members of Congress perhaps to serve as liaison with different groups. We're asking our members to determine the impact of R&D within their own districts, and to develop a message as to what would happen in the event of this or that future scenario for declines in R&D.

I met today with a group from the aerospace industry at the level of engineering and technology directors, and they feel that they would like to participate. We've got favorable responses from some universities, who are beginning to understand how you can influence the public constituency that they depend upon, like providing more information about the contributions that the university makes to the well-being of the state and the community. Higher education and research are very important economic factors in our society.

SGR. *You have said that under long-term budget plans, NASA can't do all the things it's committed to doing.*

Brown. No, they can't. And Bob Walker (R-Pa.) [Chairman of the House Science Committee] wants it that way. And the things he doesn't want them to do are basically in the global-environmental type of research. He hopes that by getting a commitment to stable-fund the Space Station and only slightly decrease NASA, that he can put all the squeeze on the environmental programs, and to some degree on the aeronautical R&D, which he thinks is corporate welfare, in part. That's his strategy, and I don't like it particularly. I indicated in my last couple of votes that if we can't have some assurance of maintaining the integrity of the whole NASA research program, I'm opposed to the Space Station. I hate to do that. The Space Station is awfully good for California, but in the last two votes, I voted against it.

SGR. *Is there a piece of it in your district?*

Brown. I have very little R&D in my district. I owe more to the Japanese than I do to NASA. They have their largest Toyota parts distribution plant in my district.

New Study Aims for Data on Science Job Market

Amid much contention but little timely data about the job market for new graduates in science and engineering, the Alfred P. Sloan Foundation is putting up $415,000 to monitor supply and demand and rapidly distribute the findings, including the murky matter of what happened to last year's graduates. The target date for the first reports is early next year.

The project will be carried out by the Commission on Professionals in Science and Technology, a Washington-based association of some 40 professional societies, industrial firms, and, just recently signed up, one university, UC Berkeley. Participating as subcontractors, at about $40,000 each, are the American Chemical Society, the American Geological Institute, the American Geophysical Union, the American Institute of Physics, the American Mathematical Society, the American Psychological Association, and, representing computer-related associations, Herbert Maisel, Professor of Computer Sciences, Georgetown University.

With the exception of the Psychological Association, the project, funded for two-and-a-half years, has not enrolled any organizations in the life sciences. But the Commission's Executive Director, Catherine D. Gaddy, who is heading the study, told SGR last week that discussions are planned with the Federation of American Societies for Experimental Biology and other biomedical associations to see how they might participate.

An announcement from the Commission says the organizations in the initial lineup were chosen because of "their previous experience collecting data from graduates."

Though generally considered to be somewhat short of robust in recent years, the state of the S&T job market has spawned widely differing assessments. A Pollyannish contingent, centered at the National Academy of Sciences, points to the official unemployment numbers of 1-2 percent, and argues that the problem for fresh graduates is "delayed employment," rather than unemployment.

That's the conclusion offered in the Academy's most recent major report on the S&T job market, *Reshaping the Graduate Education of Scientists and Engineers*, published last spring [SGR, May 1]. But even that report observes that "the pertinent national surveys of new and recent PhD recipients lag by several years." And it notes that "Results of surveys by the professional societies of physicists, chemists, and mathematicians indicate that graduates in some fields are experiencing double-digit unemployment for increasing periods after graduation." In the end, however, the Academy report cheerfully concludes that recent graduates "do eventually find employment."

Indeed they do, says the gloomy camp, largely populated by the hard sciences, but many of the jobs they find in science and engineering are temporary, and some of the jobs are distantly or not at all related to their graduate training. Hidden unemployment masks the reality of a feeble job market, according to the professional associations of mathematicians and physicists.

Claims of a weak job market for scientists and engineers have spawned strong moves in Congress to restrict S&T immigration [SGR, Dec. 15]. Disappointed graduates have also bitterly suggested that they were misled into believing that their hard-earned diplomas would lead to good jobs.

The Sloan-supported study aims to distribute its findings on supply and demand and other employment topics via the Internet early next year, Gaddy says. The findings, she added, will "supplement and complement" the basic statistical data that the National Science Foundation regularly compiles on enrollments and employment.

Press Pushing His Plan

Frank Press, former President of the National Academy of Sciences, is gamely pushing his plan for focusing on academic science in federal funding of research, as well as other proposals embodied in a report he orchestrated late last year, *Allocating Federal Funds for Science and Technology* [SGR, December 1]. But politics and the power of the status quo suggest rough going ahead.

That was evident on January 23 when Press and a senior White House science official, Ernest Moniz, discussed the plan at a periodic science-policy seminar sponsored by the American Association for the Advancement of Science and George Washington University.

The proposal for change carries the implication of defects in the current way of doing business. And Moniz, Associate Director for Science in the Office of Science and Technology Policy, was not about to concede serious shortcomings in the Clinton science policies—especially since the Press report is cool to the role of the national labs and looks skeptically upon the Administration's zest for industrial R&D.

The emphasis on academic research, Moniz said, "is open to misinterpretation," since it seems to reflect poorly on the national labs. Moniz also said that the National Science and Technology Council, a Clinton innovation, was moving toward the kind of comprehensive R&D budget advocated in the report.

Moniz also defended the industrial programs as responsive to "a profoundly changed structure in industry." Press said that NIST's Advanced Technology Program had grown ten-fold between 1992 and 1996 and "that's very rapid."

Press said favorable interest in the proposals has been expressed by two prominent legislators, Senator Mark Hatfield (R-Oregon), Chairman of the Appropriations Committee, and Rep. Robert Walker (R-Pa.), Chairman of the Science Committee. Both, however, will retire at the end of this year.

Press nonetheless says he's optimistic, and described the report as "a beginning effort" that will take "several years to implement."

Job Changes: Two Senior Aides Leaving OSTP

Two of the four Associate Directors at the White House Office of Science and Technology (OSTP) will be leaving soon for other jobs, creating gaps, just below the level of Director, that are likely to be slow to fill this late in the Presidential term.

Jane Wales, Associate Director for National Security and International Affairs, is going about February 15 to the Rockefeller Brothers Fund, to be Assistant to the President for International Security Policy, with offices in New York and Washington; and ***Robert T. Watson***, Associate Director for Environment, moves in mid-April to the World Bank, to become Senior Science Adviser for Environment.

Both positions, for which successors have not yet been named, are Presidential appointments subject to lengthy background checks and Senate confirmation—often a slow-moving process in today's acrid political milieu. The most recent Senate confirmation of an OSTP Associate Director, Ernest Moniz, to head the Science shop, languished on Capitol Hill for six months.

Though OSTP has been sinking in the White House pecking order, the departures are said to be unrelated to policy matters. Wales told SGR the New York link is desirable because her mother is ill there. And Watson said the World Bank job provides a direct opportunity for implementing environmental policies that he has long advocated.

Roger C. Herdman, Director of the Congressional Office of Technology Assessment when the Republican budget ax landed, has been appointed a Scholar-in-Residence at the Institute of Medicine (IOM), health-policy wing of the National Academy of Sciences. Herdman, an MD, has been supervising the close-down of OTA, and plans a mid-February move to the Academy, an occasional stopping-over place for mandarins eventually headed elsewhere.

Clyde Behney, another OTA alumnus, is bound for the Institute of Medicine, to head the Division of Health Care Services, which is deep into studies of health-care reform and related issues. Behney was Deputy Director at OTA and head of its Health Division. At the IOM, he succeeds ***Kathy Lohr***, who has moved to the Research Triangle Institute, in North Carolina.

Thomas Moss, Dean of Graduate Studies and Research at Case Western Reserve University since 1984, has been appointed Director of the Academy's Government-University-Industry Research Roundtable, a gathering place for the three sectors to mull over common issues of R&D policy. He succeeds ***Damian Kulash***, who left late last year to become President and CEO of the Eno Transportation Foundation, Lansdowne, Maryland.

At the Association of American Medical Colleges (AAMC), Washington lobby for mainstream medical schools: ***David A. Blake***, Executive Vice Dean for Research at the Johns Hopkins School of Medicine, has been appointed Vice President for Research, succeeding ***John Diggs***, who died last year. And ***Susan Neely***, Senior Vice President for Public Affairs at the Health Insurance Association of America, has been appointed AAMC Vice President of Communications. She succeeds ***Steve Villano***, who left last year to become Vice President for University Affairs, SUNY Brooklyn.

Gerald Epstein has been detailed from the Department of Energy, where he worked on defense programs, to the National Science and Technology Council's Committee on National Security.

Too Many Doctors, Says New IOM Study, in Urging Cutback

End Medicare funding for foreign medical residents, stop building medical schools, and freeze class sizes in existing institutions—that's the formula recommended by an Institute of Medicine (IOM) committee in response to fears of a doctor glut.

The proposals are considerably less drastic than those recently recommended by the Pew Health Professions Commission, which not only called for cutting off residencies for foreigners, but also said domestic schools should be closed to reduce enrollments by 20-25 percent [SGR, December 1].

Citing the staff reductions wrought by managed-care, the Pew report forecast a surplus of 100,000-150,000 physicians within a decade. The IOM report noted studies over the past 15 years predicting a substantial oversupply, but it confined itself to describing the present numbers as "abundant" and at a level that calls for cutting back.

Alarms of this sort have been sounded for at least 20 years, but the onset of hard times in the medical marketplace provides a bite and impetus to action that had been absent. Just coincidentally, the AMA reported last week that median income for physicians declined last year by nearly 4 percent.

MDs per 100,000 people rose from 150 in 1970 to 245 in 1992, the IOM report states. "No firm evidence can be marshaled to show a beneficial effect of a physician oversupply on costs, access, or quality," says the report, produced by a committee co-chaired by Don E. Detmer, Senior Vice President, University of Virginia, and Neal A. Vanselow, Professor of Medicine, Tulane University.

The IOM points out that the annual number of graduates from US medical schools has been stable, at about 17,500, for about a decade. Foreign residents have increased, from 12,433 in 1988 to 22,706 in 1993, with some 75 percent going into practice in the US.

The report recognizes that foreign residents fill many residencies in inner-city hospitals shunned by Americans in training, and recommends that steps be taken to provide for replacements before the immigration doors are closed.

The IOM report, *The Nation's Physician Workforce: Options for Balancing Supply and Demand* (109 pp., $22, plus $4 for shipping) is available from: National Academy Press, 2101 Constitution Ave. NW, Washington, DC 20418; tel. 1-800/624-6242 or 202/334-3313.

In Print

(Continued from Page 8)

From the Center for Immigration Studies:

Immigration Review (quarterly, $16), news, analysis, and polemics about immigration policy and legislative reform, which appears bound for Congressional enactment this year [SGR, December 15]. The winter 1996 issue of the *Review* (16 pp.) contains several articles on the contentious issue of scientific, engineering and other high-skilled immigration. The Center, self-described as "non-partisan," demonstrates a pronounced tilt toward protecting the home folks against immigrant competition.

Order from: Center for Immigration Studies, 1815 H St. NW, Suite 1010, Washington, DC 20006; tel. 202/466-8185; fax 202/466-8076.

From Gale Research, Inc.:

Government Research Directory: 1996-97 (1038 pp., $465), ninth edition of a comprehensive guide to over 4200 US and Canadian government research facilities and related administrative organizations in basic and applied sciences, medicine, agriculture, energy, the social sciences, etc. Entries include names of senior officials, postal and e-mail addresses, telephone and fax numbers, summaries of research programs, organizational links, etc.

Order from: Gale Research, 835 Penobscot Building, 645 Griswold St., Detroit, Michigan 48226; tel. 313/961-2242 or 1-800/877-4253; fax 313/961-6083.

From the Organization for Economic Cooperation and Development (OECD):

National Systems for Financing Innovation (118 pp., $40), reviews the financial arrangements for developing and bringing products to market in several of the 25 OECD nations—a timely topic in the US, given Congressional abolition or shrinkage of the Clinton Administration's major programs for directly subsidizing R&D considered to have high commercial potential.

Order from: OECD Publications and Information Center, 2001 L St. NW, Suite 700, Washington, DC 20036-4910; tel. 202/785-6323; fax 202/785-0350; also available from book shops and OECD offices in major cities around the world.

From the National Academy of Sciences (NAS), Institute of Medicine (IOM):

Assessing the Social and Behavioral Science Base for HIV/AIDS Prevention and Intervention (72 pp., no charge), report of a workshop held last June by the IOM, health-policy arm of the Academy, producing a cry of neglect from the social and behavioral sciences, which contended that their potential against AIDS merits more recognition and support. "What has been missing" in AIDS research, says the report, "is a detailed examination of the history, geography, anthropology, economics, psychology, and sociology of the epidemic as it affects local communities throughout the United States and the world. The social science research effort that could provide this information," it adds, "lags far behind the biomedical and epidemiological study of the epidemic." The workshop committee was chaired by Arthur Kleinman, Chairman, Department of Social Medicine, Harvard Medical School. Patricia Mrazek, of the IOM staff, was Study Director. Support was provide by the NIH Office of AIDS Research.

Order from: Institute of Medicine, Division of Biobehavioral Sciences and Mental Disorders, Room FO-3021, 2101 Constitution Ave. NW, Washington, DC 20418; tel. 202/334-3387; fax 202/334-1317.

From the American Mathematical Society (AMS):

What's Happening in the Mathematical Sciences: 1995-1996 (111 pp., $12, plus $3 for shipping), in stylish format, and largely accessible to laymen, 10 articles about recent developments in mathematics, written by Barry Cipra, a science journalist. This publication is one of the snappier examples of a growing genre from scientific societies seeking to increase public understanding of their work and its societal value.

Order from: American Mathematical Society, Post Office Box 6248, Providence, Rhode Island 02940-6248; tel. 1-800/321-4267; fax 401/331-3842.

From the Israel Academy of Sciences and Humanities:

Strategies for the National Support of Basic Research: An International Comparison (355 pp., $20), proceedings of a symposium in October 1994 in Jerusalem, with participants from 10 large and small scientifically advanced nations ruminating on the economics and politics of science support in the post-Cold War era. From the US to Holland and Israel and beyond, they generally agreed it's rough going.

Order from: Israeli Academy of Sciences and Humanities, P0 Box 4040, Jerusalem 91404, Israel; tel. 972-2-636-211; fax 972-2-666-059; e-mail: isracad2@vms.huji.ac.il

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From the National Academy of Sciences (NAS):

Setting Priorities for Space Research: An Experiment in Methodology (81 pp., no charge), a report declaring failure in efforts poking along since 1992 with the proclaimed goal of devising methods for establishing priorities in space research. Political pressure for cost cutting propels these distasteful exercises in choice-making, and other disciplines might usefully tune in to how the space-science community has created the appearance of earnest endeavor. Financed by NASA, the job was assigned to a specially created Task Group on Priorities in Space Research by the NAS Space Studies Board, the frail voice of academic science in the rough world of space politics. But, as the report states, "Like a great many worthy experiments, this exercise did not yield exactly what the framers had anticipated." The Task Group, chaired by John A. Dutton of Pennsylvania State University, conjured up a convoluted methodology based on advocacy statements addressing scientific benefits, value for national objectives, costs, etc., for evaluation by the Board. But the Board backed away from the proposed methodology, citing, among several objections, the difficulties of encompassing major initiatives and small projects in one system. The priority-setting project was suggested in a 1992 NAS report that's also available: ***Setting Priorities for Space Research: Opportunities and Imperatives*** (63 pp., no charge).

Order from: Space Studies Board, National Academy of Sciences, 2101 Constitution Ave. NW, Washington, DC 20418; tel. 202/334-3477; fax 202/334-3701.

From the General Accounting Office (GAO), no charge:

Transforming the Civil Service: Building the Workforce of the Future (GAO/GGD-96-35; 36 pp.), skimpy summary of a symposium last April in quest of private and public examples of organizational forms and styles that might benefit the US civil service. Distilled from the proceedings are a series of vapid managerial slogans presented as "a set of basic principles for managing people that differs from the traditional civil service model," including: "Value people as assets rather than as costs," and "Pursue an integrated rather than an ad hoc approach to information management." The GAO report says that the former head of the US Forest Service, Dale Robertson, told of a study that concluded that the majority of "performance barriers" are internally self-imposed by agencies and are not attributable to Congress or the federal Office of Personnel Management. He is quoted as saying that his own agency's barriers were homegrown: "It wasn't anybody else but us at the Department of Agriculture and the Forest Service." Participants included executives from Xerox, AT&T, IBM, labor unions, universities, and civil service administrators from Canada and Australia.

Pesticides: The Phaseout of Methyl Bromide in the United States (GAO/RCED-96-16; 41 pp.), notes concerns that satisfactory substitutes may not be available to replace widely used methyl bromide pesticides, scheduled by the Environmental Protection Agency for elimination from the US market by 2001 because of their ozone-destroying characteristics. The GAO warns that American farmers may be at a competitive disadvantage, since other nations have agreed only to a production freeze at 1991 levels, rather than a phaseout. The EPA, however, disputes the risk of "large losses" for farmers, the report points out. The GAO says that EPA and the US Department of Agriculture last year spent $13 million on research for methyl bromide alternatives, a sum deemed greatly inadequate by a growers association, the Crop Protection League. If suitable alternatives are not available, the GAO recommends, EPA should be authorized to grant exemptions for "essential uses" in situations where the benefits exceed the risks to health and the environment.

Energy Downsizing: Criteria for Community Assistance Needed (GAO/RCED-96-36; 9 pp.), looks at one instance of the Department of Energy's post-Cold War divestment of surplus facilities, in this case the Pinellas plant, in Largo, near Tampa, Florida, a producer of nuclear-weapons components, which was transferred last year to a local industrial-promotion council. Noting that at Pinellas and elsewhere DOE will be spending "millions of dollars to mitigate the adverse economic effects of downsizing on communities," the GAO said DOE lacks criteria for measuring the impact of closures and for determining the types of assistance it will provide. DOE replied that Pinellas was an early venture in community assistance, and that it is developing methods along the lines recommended by the GAO.

Order from: USGAO, PO Box 6015, Gaithersburg, Md. 20884-6015; tel. 202/512-6000; fax 301/258-4066.

From the American Enterprise Institute for Public Policy Research (AEI):

Making Science Pay: The Economics of Agricultural R&D Policy (375 pp., $29.95, plus $3 for shipping), says agricultural R&D is bogged down in obsolete priorities and spending patterns, and urges greater use of economic analysis in allocating federal money in this area, now about $1 billion a year. The authors, Julian M. Alston, UC Davis, and Philip G. Pardey, International Food Policy Research Institute, Minneapolis, describe the present system as "formula funding and special grants for extramural R&D and a private pot for intramural R&D." And, noteworthy because AEI is a bedrock of political conservatism, they recommend more federal money for agricultural research, stating that "the actual rates of return are high enough to justify an expanded total research investment." The book is the latest in a series of AEI agricultural-policy studies, all listed in the ***AEI Press Catalog of New and Recent Books: Fall/Winter 1995-96***, available without charge.

Order from: AEI Press c/o Publishers Resources Inc., 1224 Heil Quaker Blvd., PO Box 7001, La Vergne, TN 37086-7001; tel. 1-800/269-6267; fax 1-800/PRI-ORDER.

(Continued on Page 7)